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PRESIDENT'S MESSAGE

It seems to me that the most important problem facing industrial psychologists in the USA today is the problem of the predictive validity of aptitude and other tests for subgroups within the American labor force.

Statisticians have long bemoaned the low validity coefficients of most of our testing devices. Unfortunately, most of the energy released by these frustrations has gone into the development of elaborate rationalizations, by test developers and by test users, revolving around such notions as the effect of motivational variables, unreliability of success criteria, changes in job content, and the like. Without denying the significance of such factors, and the appropriateness of further research on their applicability, I wish to suggest that a more direct approach may be required.

Most of us have been quick to hide behind the platitude, "Well, the testing program is better than any alternatives which have been proposed; and at least it is fair to all applicants." We are now faced with the blunt charge that testing programs are, in many instances, not fair to all subgroups within the labor force; and we must give some consideration to the possibility that our low validity coefficients reflect systematic errors in the tests themselves. Recent studies on moderator variables suggest that a test may give a high positive validity coefficient with one segment of a population, but lead to a nonsignificant or even negative coefficient in another stratum of the same total group. The naive mingling of these two (and other) segments may, not surprisingly, give rise to the validity coefficients in the $+ .3$ to $+ .5$ range which are so disturbing.

It seems to me, therefore, that the concern about industrial testing programs, so widely expressed at the Chicago meetings, is appropriate. Division 14 will foster committee discussions of this problem. But this is not a situation which can best be handled by a small group of discussants. It calls for many psychologists in this field to roll up their sleeves and start gathering relevant data on the matter. Scientific psychology must put empirical evidence above theoretical considerations. But it is urgent, in the present context, that these data be collected with meticulous care, and that the methods utilized be based on a sophisticated theoretical analysis.

I sincerely hope that the program for our 1966 sessions will include several solid, carefully developed research contributions on the role of subcultural factors in the determination of validity coefficients. It would be good also to have an intensive discussion of ways to administer testing programs so as to minimize the hazards of which we are now cognizant, but top priority should go to the deeply needed research on this problem.

Ross Stagner

(The above Presidential Message was enclosed in a "Letter from Great Britain" which said, in part, "Please make a note of my address for future missives (and missiles, if necessary):

10A Eldon Grove

London, N.W., 3, England

I am sorry to run away and leave Division 14 in the lurch, but the opportunity was just too enticing to pass up....Ross")

JB

CALL FOR NOMINATIONS FOR DIVISION 14 OFFICES

The Division 14 By-laws provide an Elections Committee consisting of the immediate Past Presidents and the President Elect (Chairman). The Committee makes a mail call for nominees each year usually from the office of the Secretary-Treasurer.

Now that the Division has a Newsletter, the Committee has decided to put the Ballot in TIP. The ballot is in the Center Spread which can easily be removed. TIP was sent to you in an envelope instead of the usual wrapper so that we could include an envelope addressed to President Elect Dunnette in which you can send your nominations.

We are also publishing lists of past officers and members of the Council. Current Committee Chairmen are listed on the back cover of TIP. These lists and the Divisional membership list in the APA Directory should be an adequate source of names for you to consider.

A fear expressed is that use of TIP may result in a somewhat smaller ballot return than a special mailing. Though this note should not be considered an appeal for high return of ballots to show that TIP is read, a high return might be taken as a vote to continue this practice. And including the ballot in TIP does result in a savings of Divisional funds.

OFFICIAL DIVISIONAL BUSINESS

MINUTES OF DIVISION 14 BUSINESS MEETING

Philip Ash, Secretary-Treasurer

September 5, 1965

Chicago, Illinois

1. Secretary-Treasurer Report. Copies of the Annual Report, the Financial Statement and Budget, and the list of proposed new associates, members, and fellows were distributed to the membership.

- a. Since they were published in TIP, the Chairman suspended reading of the minutes of the September 5, 1964 Business Meeting.
- b. The membership approved by voice vote the continuation of the \$2.00 assessment on Fellows and Members, as recommended by the Executive Committee, and also the revision recommended in Article VII (12) of the By-laws, making the Workshop Committee a standing committee.

2. Election Report. Ross Stagner reported the results of the election:

President-Elect

Marvin D. Dunnette

Member-at-large of Executive Committee (1965-68)

Robert Perloff

Member-at-large of Executive Committee (1965-66)

Jack A. Parrish

Division Representative to the APA Council (1965-68)

Bernard Bass

Dr. Stagner pointed out that the 466 ballots cast for president-elect represented only 54 percent of the membership.

Dr. Stagner also announced the names of the 1965-66 chairmen of the Division's standing committees.

3. New Members. Paul Sparks reported on new member applications. The membership unanimously voted to approve the recommendations of the Executive Committee to vote into membership the following:

37 new Members

31 new Associates

4. New Fellows. Clifford Jurgensen reported that 13 members had been nominated for Fellow status. Completed papers had been received for 6. Four individuals were recommended by the Executive Committee for approval by the membership:

Ralph Stogdill - a Fellow of Divisions 8, 12, 13, 19

John B. Miner

Robert M. Guion

Hjalmar Rosen

(The latter two had not yet been approved by the APA Membership Committee on September 5, but were on September 7).

The membership unanimously voted to accept the Executive Committee's recommendations.

5. Education and Training. James Naylor reported that the manuscript for the project, "Guidelines for Graduate Training in Industrial Psychology," has been accepted for publication in the American Psychologist. The study of post-doctoral training needs is being revised for Division distribution and possible publication.

He also mentioned the development in a few institutions of the Psy. D. (professional) degree, which would not require languages or a dissertation. He reported that Ross Stagner has conducted a survey to evaluate the proposed degree; the survey is in process of analysis. He emphasized that the degree poses critical problems, of which all should be aware.

6. Newsletter. Brent Baxter, reporting for Robert Perloff, Editor of TIP, said that reactions to the Newsletter were all enthusiastic. Dr. Baxter also reported that Dr. Perloff has resigned from the editorship, which will be assumed by John Boulger, and that the Executive Committee has approved distribution of TIP to graduate students in psychology.

7. Professional Affairs. Frederic Wickert reported that the Committee had 8 ethics cases, of which 5 were settled and 3 are still in process. He said that the Committee tried to become involved in the broader issues facing the field, and succeeded to some extent. The Committee: advised the President regarding the Division 3 proposals for APA reorganization; participated in the Conference on Professional and Scientific Issues in Psychology; prepared a statement (published) for TIP on current professional issues; prepared a statement for TIP asking for copies of member-conducted surveys of Division 14 members; looked into the question of a salary survey and took advantage of data furnished by the National Register survey (to be published in TIP); and prepared a description of the functions of the Professional Affairs Committee.

8. Program. Jack Parrish reported that the Division had been allocated 25 hours (5 hours less than last year). Of 44 papers submitted, 20 were accepted; of 5 proposed symposia, 2 were accepted. The Committee developed 6 symposia and arranged 4 invited addresses. In addition, a chairman-elect was appointed, a committee job description was prepared, and a meeting was held of past program chairmen.

9. Scientific Affairs. Patricia C. Smith reported that the principal activity of the Scientific Affairs Committee concerned the Cattell Fund and awards. Also, a standing sub-committee was formed to seek out funding of industrial psychology research projects.

10. Special Interest Activities. Norman Vincent, reporting for William Jaynes, said that the Committee completed a survey of new Division 14 members. The major finding was that new graduates are going into industrial settings rather than academic settings, and that they say, they need more "bread and butter" training. A survey of degree-granting institutions, and a survey of dissertations to detect trends in research interests, are scheduled for next year.

11. Workshop. Ray Hedberg reported that the 13th Annual Workshop had a record 110 registrants, and a positive response among attendants. He also reported that the Executive Committee approved a grant of \$500 from the Workshop account to the APA Building Fund.

12. APA Council. Herb Meyer reported on the discussions of the APA Council on its first meeting day.

13. Cattell Award. Brent Baxter announced the results of the second Cattell Award competition. (See announcements of Interest).

14. Induction of New President. Brent Baxter introduced to the membership Ross Stagner, who assumed the gavel as President. Dr. Stagner then introduced Dr. Baxter, who gave the Presidential Address, "Quo Vadis."

MINUTES OF OUTGOING DIVISION 14
EXECUTIVE COMMITTEE MEETING
Philip Ash, Secretary-Treasurer

September 3, 1965

Chicago, Illinois

1. Secretary-Treasurer Report. Dr. Ash reported the following:

A. Clarification of the Minutes of the Meeting of May 28-29, 1965.

1. The position paper on the Psy. D. degree was to be presented to both the Outgoing Executive Committee meeting and to the Business Meeting.
2. Reasons for rejection of certain candidates for membership and Fellowship were discussed.

B. Finances. From 6/30/64 to 6/30/65, the Division's balance decreased by \$600.76, from \$5099.37 to \$4498.61. Under the proposed budget allotments for 1965-66, expenditures of \$4190 are contemplated, against an expected income of \$2780. However, while the further decline of \$1410 would bring the total Division account to somewhat below a year's operating expenses, it was proposed that no increase be made in the assessment.

C. Copies of the Division Annual Report, as it was submitted to the APA Council, were distributed to the Executive Committee.

2. Scientific Affairs Committee. Dr. Smith reported that 5 projects were in process, with no progress in 3. Two projects are of great concern.

The first has to do with the effect of race on the prediction of job performance from test performance. Funds do not seem to be available for research in this area, although, research proposals (e.g., Lockwood's Cattell Award submission) have been made, and some research is going on within individual companies. It was the Committee's consensus that the problem was broader than the concern of Division 14 alone. After discussion of various alternatives, a motion was unanimously approved providing that the

Scientific Affairs Committee would present a resolution from Division 14 to the Board of Directors of APA calling attention to the need for research on race as a moderator variable in the prediction of job performance. In addition, the Scientific Affairs Committee will follow up on the problem in its own sub-committee.

The second project has to do with the funding of research projects. No progress has been made in this connection. Dr. Bass reported that a committee of the NAM is working on ways of introducing Social Science research into industry.

3. Elections Committee. The results of the election were reported.

4. Petition for a Division of the History of Psychology. The Executive Committee approved a motion instructing its representatives to the APA Council to raise no objection to the formation of such a division.

5. Position Paper on the Psy. D. Degree. Dr. Stagner reported on the early returns of a survey of the opinions of "prominent industrial psychologists" concerning the expected positive and negative consequences of (a) initiating a Psy. D. program and (b) adhering to the Ph.D. as the standard doctoral program in industrial psychology. The survey indicated that the respondents have a leaning toward the Ph.D. There are more negative consequences than positive foreseen for the Psy.D., and the mean (negative) utility value is greater; the converse is true for the Ph.D.

Dr. Baxter pointed out that there were more than these two alternatives -- e.g., the Ph.D. could be modified.

It was agreed that Dr. Naylor would report on this problem to the membership at the Business Meeting, and refer to the survey. When completed, it was proposed that the study be published in TIP and the American Psychologist.

6. Midyear APA Council Meeting. APA President Bruner and President-Elect Hobbs wrote to presidents of divisions and state associations seeking advice concerning the desirability and feasibility of holding a second meeting of the Council of Representatives during 1965-66 to deal with a number of pervasive issues of APA purpose, function, and structure.

The Executive Committee was opposed to the proposal and three motions instructing its representatives to Council were approved:

- A. To read the following paragraph from Dr. Baxter's letter of 8/17/65 to Drs. Bruner and Hobbs:

"Despite the feelings expressed in the first paragraph, I would not encourage the utilization of the Council for this purpose until its form of organization can be altered. Its present representation, heavily affected by State organizations, no longer appears to be a representative body. In addition, from experience in Council Meetings, it would appear that the group is too large to serve as an effective means of discussion of these important topics. If such a meeting were to be held, I believe it would be highly desirable to break it into small task forces which would discuss a particular topic and report back to the Council."

- B. To propose support only from APA funds, if such a meeting is held, and

- C. To vote in opposition to such a meeting "under present circumstances."

7. Fellowship Committee. Clifford Jurgensen reported that the APA Membership Committee approved the recommendation of election to Fellow status of one member, but rejected three others. Division 14 was invited, however to appear before the APA Membership Committee in Chicago (during the Convention). It was agreed to advise the APA Committee that the Executive Committee discussed the points raised in the letter advising the Division of the rejection and found the evidence contradictory.

8. Membership Committee. Paul Sparks raised two policy questions.

First, does the Executive Committee expect adherence to deadlines in the matter of Member and Associate applications (all materials received by May 31)? The consensus was that deadlines should be adhered to: it is the candidate's responsibility to see that sponsors get endorsements in on time.

Second, should the Membership Committee emphasize quality (maintain high standards) or quantity (recruit many new members)? The consensus seemed to be that applicants, who must have achieved membership in APA, would meet quality standards if they were in the field of industrial psychology.

9. Professional Affairs Committee. Dr. Wickert reported that:

- A. The Committee is recommending the announcement of an advisory service to help in the prevention of ethical practices violations. People could obtain advisory opinions before entering upon questionable practices. It was suggested that such service be cooperative with Divisions 13, 19, and 23.

- B. The Committee has handled 8 cases this year. Five are closed, 2 are active, 1 is "in limbo."

- C. The Committee has been carrying on correspondence with APA concerning a salary survey. Data are available from the National Register. While these data are not quite comparable with previous Division surveys (Dunnette, Dunnette and Sawyer), they can be used. The Executive Committee approved, on Dr. Wickert's request, the purchase of data from special runs to show salaries for specialties within industrial psychology.

- D. Dr. Wickert reported on the Conference on Professional and Scientific Issues in Psychology (COP SIP). The Conference developed seven proposed changes of APA By-laws. These were supported in general by state and local association representatives, but not one division voted on them. Dr. Wickert reported that the Conference had obtained a place on the APA Council agenda to discuss these proposals, but that the Conference also voted not to submit (at least for the time being) a set of petitions that would require putting these By-laws changes to a vote of the APA membership.

10. Education and Training Committee. Dr. Naylor reported that the manuscript on "Guidelines for Doctoral Training in Industrial Psychology" has been accepted for

publication in the American Psychologist, and that the report on post-doctoral training is currently being revised by Howard Maher and Paul Ross for submission for publication in the American Psychologist.

11. Newsletter. Dr. Boulger, reporting for Dr. Perloff, commented that the last issue (Vol. 2 No. 3) was more expensive to print than any previous issue because of the length of Dr. French's paper on the Motorola case.

12. Public Relations Committee. No report was given.

13. Program Committee. No report was given.

14. Special Interest Activities Committee. Dr. Jaynes reported that four research activities are in progress:

1. A survey of degree-granting institutions
2. Journal content analysis
3. Analysis of recent dissertations
4. Analysis of Division 14 programs

A job description of committee activities has been prepared.

15. Workshop Committee. Dr. Hedberg reported that the 13th Annual Workshop was a success. He recommended continuance of the reduced fee.

He also recommended that the Division make a grant of \$500 from the Workshop account to the APA Building Fund. A motion to this effect was unanimously approved by the Executive Committee.

MINUTES OF INCOMING DIVISION 14
EXECUTIVE COMMITTEE MEETING
Philip Ash, Secretary-Treasurer

September 6, 1965

Chicago, Illinois

1. Phil Ash reported that APA Council was bringing to a vote the question of a two or two-and-a-half day meeting of Council in the spring. He said that sentiment in Council seemed strongly to favor such a meeting, with the exception of the Division 3 representatives, and he asked for a reconsideration of the Executive Committee's previous instruction to oppose such a meeting.

Dr. Ash expressed the view that a meeting is necessary to face up to and deal with the organizational problems confronting APA. Four alternative positions were discussed:

- a. To reaffirm the previous decision and oppose a Spring Meeting of Council.
- b. To support the proposal for a Spring Meeting.
- c. To propose to Council that non-legislative regional discussion meetings be held preparatory to discussion of the questions at issue in September 1966.
- d. To propose regional meetings preparatory to a Spring Meeting of Council, possibly with reduced representation (each component division and association sending only one delegate with proxies for the component's other delegates).

The consensus of the Executive Committee was that its representatives to Council be uninstructed on the issue, rescinding the September 3, 1965 resolution to oppose such a meeting. A preference was expressed in favor of such a meeting.

It was agreed that the Division 14 policy regarding reimbursement of expenses would apply: each representative would first try to utilize his personal resources, if any; if he could not obtain financing himself, he could bill the Division for his expenses. No claims would be made against APA.

2. Suggestions for members for standing committees were solicited. The editor of TIP was requested to insert a coupon in TIP asking for volunteers for committee assignments for 1966-67.

3. Bob Perloff urged that the Scientific Affairs Committee take up and consider the problem of the need for theory in industrial psychology, as outlined in Brent Baxter's Presidential Address. A motion was approved to refer Dr. Baxter's address to the Scientific Affairs Committee for review and development of approaches to the problem.

APA 1965 COUNCIL OF REPRESENTATIVES MEETING

H. H. Meyer
General Electric Co.
Crotonville, N.Y.

The Council of Representatives, the legislative body for APA, met during the APA Convention in Chicago. Division 14 was represented by Phil Ash, Herb Meyer and Bill Owens. Stan Seashore, our fourth representative, was out of the country and therefore unable to attend.

Most items requiring decisions by the Council are rather routine administrative matters for which formal Council approval is needed -- e.g., committee appointments, new members of APA, budget, and the like. When non-routine issues come before the Council, most members have to depend on recommendations of the Board of Directors or committee reports, since there is too little opportunity for each Council member to become familiar with all the relevant aspects of the issues involved.

A few highlights of the discussions involving issues of interest to Division 14 members are:

Financial -- APA is now in much better shape financially than it has been in recent years, due to the 50% increase in dues last year. Since this increase was not accompanied by a large number of resignations, it resulted in a healthy increase in income. In general, the size of the operation and the assets of APA have increased exponentially in the last ten years.

Building -- the new APA building is now being used and all space available to outsiders has been rented. There had been some concern about the size of the financial commitment and risk entailed in this venture, but it now looks as if we were quite conservative in our plans. We could probably have rented out much more income producing space had the building been larger.

Central Office Administration -- two major new positions were established in the central office. Dr. Charles Gersoni was appointed Associate Executive Officer to concentrate primarily in the areas of scientific affairs, state and professional affairs, education and training, and publications.

Dr. John McMillan, the appointee to the second position, will focus primarily on state and professional affairs. These additions to staff should enable APA to give more attention to some of the professional issues that have concerned members of many state associations.

Elections -- Gardner Lindzey is President-elect for 1965-66.

Publications -- Psychological Abstracts will be almost doubled in size for 1966 and the subscription rate for members will be increased from \$10.00 to \$15.00 per year starting in 1967. Council also voted to take over publication of the Journal of Counseling Psychology.

Annual Convention -- there was some discussion again this year of a possible change in time of year of the annual convention. Studies are being made of the feasibility of changing from early September to mid June. (This has been proposed many times before, however, so don't let your hopes get too high.) Locations established for future conventions are: New York in 1966, Washington in 1967, San Francisco in 1968, Chicago in 1969, and Miami in 1970.

Structure and Function of APA -- the major item of business that might be considered as non-routine dealt with proposals for major changes in the structure and administration of APA. This has been a growing concern of many members for at least the last five or ten years. Some of the major criticisms have been that (1) we have entirely too many divisions, (2) the democratically appointed legislative and administrative bodies are unwieldy and ineffective, (3) the central office is not operating as effectively as it should be, especially in contributing to the solution of important political and social issues facing the country (where psychology as a profession might be expected to contribute), and (4) APA has not been as vigilant as it should be in protecting the interests of the "professional" psychologists.

Some of the large state associations and several associations of clinical psychologists have been very active in the last two years in organizing meetings and committees designed to bring pressure to bear on APA to correct the shortcomings listed above (especially (3) and (4) through major changes in APA structure and functioning. This faction, spearheaded by psychologists with a "professional"

orientation, feels that APA is too tightly controlled by a relatively small group of "academic-scientific" oriented psychologists who show too little concern about the issues confronting professional- or service- oriented psychologists.

Last year the New York State Association submitted 13 resolutions calling for radical changes in the structure and function of APA. These resolutions were all referred to appropriate APA committees. The committee reports to Council this year indicated that some actions had been taken on almost all the issues raised. Council members representing New York State expressed satisfaction with progress being made.

This year the Illinois State Psychological Association presented eight proposals dealing with suggested changes in structure and functioning of APA. One of these, for example, would increase the proportion of State over Division representatives considerably. Council voted to table these proposals. New York State Association also presented some additional resolutions, some of which were approved by Council. One of these, for example, suggested that biographical descriptions of nominees for APA offices should accompany ballots. A statement by each nominee of his point of view with respect to major issues confronting APA might also be included. Council voted to follow this procedure only for the office of President-elect.

It was also voted to hold a two-and-one-half day meeting of the Council of Representatives in the spring of the year, in addition to the usual meeting at the time of the APA convention. It is hoped that this will enable the Council to deal more thoroughly and adequately with many important issues than has been possible in the past due to the short time available to consider a very heavy agenda. States and Divisions are being asked to pay the costs of attendance of their representatives to this Spring meeting if they can, but APA will pay these expenses for those groups that cannot afford it.

NEW FELLOWS, MEMBERS*and ASSOCIATES of Division 14

FELLOWS

Robert Guion John B. Miner
Hjalmar Rosen

MEMBERS

Paul A. Banas	Howard Maher
Alan R. Bass	Stanley M. Nealey
Michael Beer	Harvey Nussbaum
John A. Bromer	Winston Oberg
David G. Bowers	Evelyn Perloff
Frederick B. Chaney	Lester G. Phares
William G. Eckerman	John R. Rizzo
William B. Eddy	Richard P. Shore
Gerald Halpern	Larry S. Skurnik
Donald L. Hardesty	Wayne W. Sorenson
J. R. Hinrichs	Bruce A. Springborn
Richard W. Holdeman	Frank M. Sterner
George P. Hollenbeck	J. W. Taylor
James Myron Johnson	Robert W. Thomson
Herbert S. Kamin	K. Brantley Watson
Lorne M. Kendall	Paul F. Wernimont
Edward E. Lawler	Benjamin B. Weybrew
Dwight P. Leicht	W. W. Wilkinson
Edwin A. Locke	

ASSOCIATES

Michael D. Adler	Julian M. Kien
Joel B. Aronson	Peter E. Kolesnik
John E. Barrett	John Sheldon Lloyd
Glenn A. Bassett	Catherine S. Marker
Theodore J. Carron	Frederick D. McMurry
Robert L. Cox	Michael D. Mitchell
Drew P. Danko	Peter Muniz
Sidney G. Dashevesky	Fred R. Oberman
William E. Dodd	David A. Savard
Charles R. East	Eugene Schmuckler
Gene L. Fields	Mrs. Ada R. Seales
Philip V. Gerdine	William J. Underwood
Thomas Harrison Gray	Mark D. Van Slyke
Mrs. Milagros Guzman	Robert Vecchiotti
James W. Hill	Ralph William Walker
Don E. Jones	

*Frank Uhlmann has erroneously been listed in the APA records and Directory as an Associate instead of Member of Division 14. Dr. Uhlmann has been a member of Division 14 since 1962.

SURVEY RESULTS--AN APPEAL TO DIVISION 14 MEMBERS

From time to time, Division 14 members run surveys of our membership or have students run such surveys. Sometimes non-members run surveys which happen to include industrial and other psychologists, tabulations are prepared for industrial psychologists, and one of our members happens to come across a not widely circulated report of the survey results. The point is that quite a few surveys are carried out, but the reports of these surveys may or may not reach Division 14 administrative circles where they can be put to Division 14 use.

The Professional Affairs Committee is generally charged with concerning itself with trends of significance to industrial psychology. However, it is difficult to act in the absence of information on such trends. Reports of surveys could well provide information of considerable significance to industrial psychology. We, therefore, request that reports of surveys which might directly or indirectly shed light on one or more professional aspects of industrial psychology either be provided to our committee or made mention of to the chairman of the Professional Affairs Committee. In this way, you may help the division to do a better job.

This year's chairman of the Professional Affairs Committee is:

Dr. W. D. Buel
The Vernon Psychological Laboratory
221 North LaSalle Street
Chicago, Illinois

COMMITTEE ON THE PRACTICE OF PSYCHOLOGY IN INDUSTRY

William F. Holmes
Lever Brothers Company

The August issue of TIP reported that the APA Board of Professional Affairs had appointed a Committee on the Practice of Psychology in Industry. This APA Committee, formed in response to a recommendation of your Executive Committee, is devoting attention to the professional problems of psychologists serving industry.

The Committee is now preparing a list of specific problems which impinge on the practice or effectiveness of psychologists in industry. It is focusing on problems such as scientist-manager role conflicts, psychologist-management communications, consultant-full-time psychologist interaction, etc. It is not concerned with constructing a code of ethics or policing the field.

The Committee on the Practice of Psychology in Industry would like to have case material bearing on effective (or ineffective) practice for use in its deliberations. The Committee construes "Industry" to include government, the military, and any organization in which people earn their livings. Under "Practice" it wishes to include not only psychologists who are employed full time by a particular enterprise, but those who consult with organizations or prepare students to work in them.

Would you please give the Committee "grist for its mill." Critical incidents, illuminating observations, strongly held opinions, and, of course, objective studies and data are sought. They should be sent to Dr. William F. Holmes, Chairman, Committee on the Practice of Psychology in Industry, Lever Brothers Company, 390 Park Avenue, New York, N. Y. 10022.

Other members of the Committee are Brent R. Baxter, Milton L. Blum, Douglas W. Bray, Jack Wm. Dunlap, Walter R. Mahler, William McGehee, and Patricia C. Smith.

HELP WANTED

At the APA meetings in Chicago, a psychologist came to me and said that he was a member of several divisions of APA but that the one which has impressed him most favorably is Division 14. As evidence he cited the excellence of the programs of our Division compared with those of other divisions and also contrasted TIP with other newsletters he received. Realizing that these judgments, of course, may be only a reflection of his interests and attitudes, I think they are important to us as well as his further comments.

He said that when he first joined Division 14, he was struck by the number of Committees it had, and felt that these might just be window-dressing, and the chairmanship and membership of them might merely be honorariums conferred on elder statesmen of the Division. He confided that the reason he was so impressed with our program was that he was program chairman for another division and he said he knew how much work and thought must have gone into developing such an interesting program. Being a committee chairman he said he knew how difficult it is to find able persons willing to work.

With the above as an introduction and a caution that work is involved, The Executive Committee would like to know if you are interested in becoming a member of any of the Division 14 Committees, if you are, fill out the coupon below and mail it to Phil Ash, Secretary-Treasurer of Division 14. Current Committee Chairmen are listed on the inside back cover of TIP.

John B.

Dr. Philip Ash
Inland Steel Company
30 W. Monroe Street
Chicago, Illinois 60603

Dear Phil,

I am interested in working on the _____ Committee
of Division 14.

Signed

CALL FOR NOMINATIONS AS A DIVISION 14 FELLOW

Members of APA may no longer apply for election as a Fellow. They must be nominated, that is, invited.

The procedure is this: The nominator must himself be a Fellow of the APA. Nominations must be made on a "Uniform Fellow Blank" which is available from the chairman of Division 14 Fellow Committee or from Mrs. Jane D. Hildreth, Technical Aide to the APA Membership Committee in Washington, D. C. The nominator must also obtain at least two sponsors of the nominee. These sponsors must be Fellows of the division making the nomination.

The completed nomination blank together with supporting data must be sent to the chairman of the Fellow Committee as soon as possible after January 1, 1966, and at any event must be prior to April 1, 1966. The Membership Committee will review carefully each nomination and recommend approval or disapproval of each case to the Executive Committee of Division 14. The Executive Committee of the Division must send the dossiers on its recommended nominations to the APA Membership Committee prior to June 1, 1966. Nominations which survive action by the APA Membership Committee are acted upon at the annual business meeting of Division 14 at the time of the 1966 convention. No "elections" are made at this business meeting, but names of candidates voted upon favorably at this meeting are submitted to the APA Council which takes final action in electing Fellows.

The above procedure is not complex, but is time-consuming. Deadlines have a habit of appearing quicker than anticipated. In fairness to nominees, nominators are urged to obtain the "Uniform Fellow Blank" as soon as possible. This will permit the nominator adequate time to secure the specific and detailed information required on educational history, doctoral dissertation, transcripts, experience, publications, etc.

Seven persons were nominated by letter last year for whom forms were sent to the nominators but for whom no documentation of any kind was subsequently received. Presumably, nominators found that the amount and detail of required information could not be obtained prior to the

deadline. In at least two other cases, unfavorable action was taken by APA Membership Committee because nominators and sponsors did not have (or take) the time and effort essential for thorough documentation. Although nominees may be known personally to members of the Fellow Committee or the Executive Committee of Division 14, they may not be known to members of the APA Membership Committee who represent far different areas of psychology. Therefore, adequate presentation of information is essential.

The APA Policy and Planning Board, as well as the Council of Representatives, has emphasized that a high degree of competence is a necessary but not sufficient condition for Fellowship in APA. Fellow status is intended to represent an acknowledgment of "unusual and outstanding contribution or performance in the field of psychology", consideration being given to contributions to the Division, the APA as a whole, and psychology in general.

C. E. Jurgensen, Chairman
Fellowship Committee

Minneapolis Gas Company
739 Marquette Avenue
Minneapolis, Minnesota 55402

ANNOUNCEMENTS OF INTEREST

The Cattell Award
Patricia C. Smith, Chairman
Committee for Scientific Affairs, Division 14

Twenty-seven proposals were submitted in competition for the Cattell Award "for the best research design in which basic scientific methods are applied to problems of business and industry." There were many excellent proposals, making the task of the judges pleasant, if difficult.

Two proposals were tied for first place, those of:

Robert M. Guion, of Bowling Green State University, Bowling Green, Ohio, "The Meaning of Work and the Motivation to Work," and

Milton Hakel and Marvin Dunnette of the Department of Psychology, University of Minnesota, Minneapolis, for "The Nature and Importance of Stereotypy as a Basis for Decision Making for the Employment Interview."

Each proposal will receive the award of \$250.00, plus, what is probably more important, the support of our Division in facilitating the actual achievement of the project, including aid in gaining access to companies and in obtaining financial support.

Two proposals received the award of Honorable Mention. They were "Decisions and Decision Makers" submitted by Herbert Horowitz of the American Institute for Research, Silver Springs, Maryland, and "Cultural Exposure and Race as Variables in Predicting Training and Job Success," submitted by Howard C. Lockwood, Lockheed Aircraft Corporation, Burbank, California. These also will receive our support in the achievement of the projects.

The Cattell Award was established as a result of the feeling of many members of Division 14 that we should be undertaking more research which was truly general, which would provide answers not only to the day-by-day problems of industry but also to some of the pervading and recurring problems of the psychology of men at work. The financing of the Cattell Award was granted by the Cattell Foundation,

established in honor of that pioneer of industrial research, James McKeen Cattell.

The first award was given last year to Dr. Ernest J. McCormick of Purdue for his proposal "A Proposed Study of Job Dimensions." Honorable mentions were awarded to Harry Triandis and Robert Ewen of the University of Illinois, Stanislav Kasl of the University of Michigan, and William Owens of Purdue University.

The Committee for Scientific Affairs feels that both the quality and quantity of proposals submitted have amply documented both the need for such research and the interest of psychologists in undertaking it.

OTHER ANNOUNCEMENTS

IBM has announced that there is a new test available for the selection of computer programmer personnel. The test, "The Aptitude Test for Programmer Personnel" has been developed to be used in place of "The Programmer Aptitude Test." It may be obtained from IBM Sales offices or from Dr. Walter J. McNamara, IBM Corporation, Armonk, New York 10504.

The Executive Study Conference will have it's Fall-Winter meeting December 1-2, 1965 at the Essex House, Indianapolis, Indiana. The theme of the conference is "Issues and Concepts in the Education and Development of Executives." For further information about the conference, write Mrs. Lois A. Crooks, Secretary to the Conference, Educational Testing Service, Princeton, New Jersey.

At a recent meeting of the Executive Board of Division 14, it was recommended that we offer to send copies of TIP, The Newsletter of the Division of Industrial Psychology to Departments offering the Doctorate in Industrial Psychology so that they could give them to their advanced graduate students in their industrial program. To date about one-half of these departments have requested copies.

If you are interested in this offer and have not already advised us, you can use the coupon below to let me know the number of copies you would like and the person to whom these copies should be sent.

John R. Boulger
Department of Psychology
Purdue University--SCAX
Lafayette, Indiana 47907

Dear Dr. Boulger

We would like you to send _____ copies of TIP to our department for distribution to advanced graduate students in Industrial Psychology. These copies should be sent to:

Signed, Department Chairman

NEWS FROM ACADEMIA

The Industrial Psychologist
at the
Extension or Regional Campus

Robert G. Neel
Purdue University Indianapolis Regional Campus

The practice of large universities in locating regional campuses or extension centers away from the main campus is becoming widespread. This practice has both advantages and disadvantages for the industrial psychologist located at these centers.

First of all, he shares with all regional campus faculties a very basic problem. Generally the teaching load is high at these campuses, usually 12 credit hours as compared to 3, 6, or at the most 9 hours on the main campus. Regional campus administrators are usually teaching oriented; therefore, the primary interest must be in good teaching. The professor must also be satisfied with mostly undergraduate courses since graduate programs are highly limited or non-existent. This tends to retard his professional development since he lacks the stimulation provided by high level graduate students. The lack of stimulation is increased by the fact that the industrial psychologist is usually the lone professor in his field at these campuses.

A further problem is the necessity for most professors at regional campuses to teach a wide variety of courses rather than to specialize in industrial psychology. The trend in most graduate schools today is towards more and more specialization; frequently, specialization in some particular aspect of industrial psychology. The necessary preparation involved in teaching a wide variety of courses limits the development of one's specialty.

It is a well known fact that psychologists make their reputations, not by teaching ability, but on quality and quantity of research (the primacy of these two cannot always be ascertained). The exceptionally heavy teaching load at the regional campuses tends to discourage research. In addition, the administrators of regional campuses do not sufficiently encourage or reward research efforts. Also, research facilities on regional campuses in terms of equipment and

space are usually highly limited or entirely lacking. On the positive side, field research opportunities in industry are more readily available since most extensions are located in larger urban areas which are more heavily industrialized. The desire and opportunity to do field research and the lack of time make for considerable conflict.

An advantage of the regional campus for the industrial psychologist are the greater opportunities for industrial consulting. These consulting activities are generally encouraged by administrators because they are part of a broad community service orientation which is prevalent in urban university settings. Such consulting activities help to keep the industrial psychologist in touch with the realities of his field. The greater consulting opportunities do not, however, counteract the negative aspects of locating at a regional campus. Because of the heavy teaching load, lack of research time and encouragement, psychologists tend to view positions at the regional campuses as having lower status than those at the main campus; therefore, it is difficult to obtain and keep high quality faculty.

Some of these problems, such as lack of research facilities, and the absence of professional stimulation and of graduate programs are a result of the present stage of development of the regional campuses and will tend to disappear with increased growth. Others, such as teaching load versus available time for research must be resolved by faculty and the administration working together to determine a reasonable balance between the two.

Despite the numerous disadvantages there is a real feeling of creativity in developing a program in a fast-growing urban institution. There is an intrinsic reward from close contact with students, most of whom the professor knows personally. In essence the industrial psychologist would like to have the advantages of the small, friendly, and close-knit urban regional campus along with sufficient reduction in teaching load to allow for some research. This, together with an expanded graduate program, leading to a masters degree, would make the regional campus a more attractive setting for the industrial psychologist.

LETTER FROM GREAT BRITAIN

by
Gerald Randell and Larry Skurnik

When talking with visitors to Britain who know something about U.S. industry and who have just been shown around some British factories, we are often drawn into a discussion on whether or not we agree that Britain can be called an 'underdeveloped country'. We usually disagree at first but then our knowledge of industry forces us to concur. If we have recently experienced another frustrated attempt to collect useful research data from a firm we might even go on to say that Britain can hardly be called even a 'developing' country.

The visitors point out that most of the machine tools seen are antiquated, that the work study people they meet seem to be rate-fixers, the training procedures for skill are mediaeval, the business and managerial training facilities are hardly used, and that Britain has proportionately fewer electronic computers at work in industry and commerce than any other industrialized country. At this stage in the discussion we are usually ready to chip in that the low usage of industrial psychologists by British industry is also evidence of the low state of industrial activity. If pushed for supporting data for the assertion, we would quote from an article in the Bulletin of the British Psychological Society of January, 1961, by Handyside, who gave a breakdown of the membership of the Occupational Psychology Section. He came to the conclusion that there were unlikely to be more than a hundred psychologists in Great Britain who were primarily and intimately engaged on occupational issues in industry and commerce. That works out at about one industrial psychologist for every 250,000 of the working population, most of whom could be called 'psychologists working in industry'. Less than half were working as 'industrial psychologists' and barely a dozen were actually working with the job title of 'industrial psychologist'. (These figures did not include psychologists employed by the government, about whom a special 'letter' will be written.)

What is the explanation for this state of affairs? One that is frequently given is that British industry is still mainly directed by amateurs or entrepreneurs, neither of whom welcome specialists, particularly specialists in human behaviour. Even though some of the enlightened directors may admit to limited knowledge of accountancy or production

control, they still believe that they know a great deal about people and would not indicate otherwise by employing some 'long-haired trick-cyclist'. This attitude is shown up in a survey of selection methods of 250 reasonably progressive firms scattered throughout England, carried out by the British Institute of Management in 1963. In all these firms, covering about 1,200,000 employees, only three psychologists were used on personnel selection work. Despite the absence of psychologists, 28% of the firms were using intelligence tests, 18% were using standardized aptitude tests and 2% made use of personality inventories. Of the six firms making up this 2% only one had the personality measures interpreted by a psychologist. Does this mean that the usage rate of psychologists on selection work in British industry is one per 400,000?

Another explanation for the small ratio is that British industrial psychologists do a poor public relations job for themselves. There may be something in this, for the rate of growth in size and influence of industrial sociologists over recent years has certainly outstripped ours. Perhaps top management just does not know what industrial psychology can do for them? Do we need a Division 14 type handout and a good press officer? But would this work with British management? Those members of the industrial establishment who know about occupational psychologists usually credit us with the ability to help alleviate some of their severe human problems when these problems are noticed; but when they read that industrial psychology can increase the effectiveness of manpower few of them would admit to their manpower being ineffective. If they did they would have some explaining to do to their trades union representatives! If they read that industrial psychology helps to increase employee's job-satisfaction they would probably ask for the evidence of correlation between job-satisfaction and work output.

Things are changing. The current demand for industrial psychologists in Great Britain far outstrips the supply. All the Government departments that employ psychologists, particularly the Ministry of Labour's Industrial Rehabilitation Service and the Prison Commission, are below strength. With the expansion of the Government's industrial training activities we are verging on a national shortage of industrial psychologists. Most of the nationalized industries such as the Coal Board, Central Electricity Generating Board, British European Airways and British Overseas Airways

Corporation are already employers of psychologists. So, of course, are American influenced firms who have factories in the U.K. like Standard Telephones, Esso, Kodak, Ford and Kellogg International. Some famous 'olde Englishe' firms are also active employers such as Rowntree's sweets, J. Lyons foods, EMI (electric gadgets and Beatle records) Samuel Fox steel and Shell Oil. Recently Rolls-Royce, of car and aero-engine fame, have employed an 'occupational psychologist' and allowed him to be called as such. Regrettably, no trades union employs a psychologist, nor does the Trades Union Congress have an industrial psychologist on the staff. There is no psychologist in Parliament, although no doubt many M.P.'s and their Lordships think themselves to be very good amateur psychologists, having gained their qualifications at the so-called 'University-of-Life'. New channels of communications are being opened up, for recently the wife of a prominent member of Parliament was appointed Professor of Psychology at one of our new universities. This was a welcomed appointment, for the new Professor is well experienced and skilled in the problems of carrying out research in the fields of applied psychology.

So perhaps Britain is 'underdeveloped', but we can at least say that as far as industrial psychology is concerned we are able to call ourselves a 'developing country'.

(Editor's note: Although it is generally not our policy to list job changes, I thought readers of TIP would be interested in the post-script added to the above letter from Great Britain: "Larry Skurnik has now moved from ABC Television to become a Senior Research Officer at the National Foundation for Educational Research in England and Wales, and Gerald Randell was elected Chairman of the Occupational Psychology Section of the British Psychological Society for 1965-66.")

CONVENTION NOTES

QUO VADIS?

Brent Baxter*
Prudential Insurance Company of America
Newark, New Jersey

One description of a leader is the man who first climbs a mountain, looks down at the people, asks "whither goest thou" then runs around to get in front of them.

One responsibility a President of our Division may assume in his annual address is to reflect what he sees as trends within our organization. It is in this sense that the title, "Quo Vadis", was selected. Where are we going? What characterizes our activities? What lies behind this movement? What seems to be changing? What could or should be done to foster the change or stem it?

If your expectations of what will follow are a dispassionate somber review of a whole series of trends, you are wrong. I plan to concentrate on one theme, try to show you what it has meant to our activities, and make a plea for a line of action.

What is my theme? It is this: the paucity of theoretical formulations when working on industrial problems is leading us in several unfortunate directions. My plea is to increase the development of theory and to make use of it as a focal point for research, for applications, and for problem solving.

I make no pretense that seeing the need for more theoretical formulations is an original perception. In fact, in preparing these comments, I have been surprised to find how often the theme, in one form or another, has been voiced recently. It nonetheless deserves repetition.

Last year at this Annual Meeting, Edward Ghiselli in an invited address on "Some Perspectives in Industrial Psychology" said "Industrial psychology needs new theories and new models to deal with the problems which now confront it."

Also, from last year's Presidential Address by Rains Wallace, let me select a nugget that describes today's theme.

He said, "If there was ever a time in which we require conceptual foundations for what we are currently doing and what we hope to do in the future, it is now." Note that he couldn't bear to bring himself to use the word "theory", a verboten term for a practical man of industry; he chose to recommend "conceptual foundations"!

But our theme is not limited to the industrial setting. Nevitt Sanford in a provocative article in the March 1965 American Psychologist declared, "I am arguing that abstract theory is not only necessary to the development of a science of personality and social systems but also most useful in practice." He feels that psychology as a whole is in serious doldrums and recommends two solutions. The first solution is to return to real human problems, -- to the difficulties people face in everyday living. This solution should be easy for the psychologist in industry. But the subjects of many articles and discussions belie this. Sanford's second solution is a return to an orientation of broad personality-social theory. This solution is alien to our customary practice.

To draw an illustration from abroad, an article in our Newsletter reported that Professor Patrick at the University of Leeds has also urged the close interaction of theory and practice. Indeed, this absence of theory has been noticed even by those outside psychology. For example, an economist, who is not naive in regard to psychological literature, recently commented to me that psychology's problem is that it lacks a fundamental structure such as was provided to economists by Keynes. Economists have been greatly aided by building other more specific theories around Keynes general theoretical approach.

Thus, both in and out of industrial psychology there is an awareness of our lack of theory and the need for it. But I believe there is little appreciation or real concern about it among most members of the Division. Few members of Division 14 are contributing to theoretical formulations. As evidence, the book on "Theories Of Contemporary Psychology" by Melvin Marx contains material by thirty-three authors. Only one is a member of our Division. Clearly we are not contributors to theory at present, but seek only to apply our present knowledge.

Our members' concerns are expressed in other forms. I should like to mention some of these other concerns and be so bold as to claim that, in large measure, they are

symptoms of our lack of coherent, as Rains Wallace put it, conceptual foundations.

First of all, I know that many of you are concerned about the dearth of rapid strides forward in dealing with industrial problems. Our prediction of the behavior of employees, management, or unions has increased relatively little in the last ten or twenty years. The rapidly growing number of articles in industrial psychology does not reflect fundamental advances but more often a multiplicity of minor tinkering in a wide variety of settings. The articles do not even reflect the greatly needed replications of fundamental experiments -- or at least rarely so.

A second concern is the wide proliferation of interests. We are becoming infinitely diverse. Recent surveys of our membership reveal we are fanning out into an increasing number of specialties, that may create even more Divisions within APA. This diversification might be interpreted as richness, as expanding to new fields to be conquered. I question this interpretation. The variation is more often only random behavior, opportunistic attacks, current whims and fads, and certainly not a spreading forth from a central position.

A third concern is that we see outside groups -- industry, government, institutions, turning to other professions for the development of subjects which I would normally regard as the province of industrial psychology. We jealously see research money, graduate facilities, funds and industry appointments go to other professionals -- sociologists, social psychologists, men trained in the new field of marketing, specialists in labor relations, lawyers, political scientists, and more lately to men with degrees in business administration. This turning to other areas is justified, not because the problems being studied are all outside our field -- but often because of our own inadequacies as well as the contributions other professionals can make.

With our lack of emphasis on a fundamental and broad psychological approach we have drifted towards becoming technicians and not scientists. Our orientation is toward methodology and techniques. If management has a selection problem, we can build a test. If there's a development problem, we know how to build a rating scale. If morale is shaky, we can develop an opinion survey. We are better known for our techniques than for fundamental insights.

A good example of where we have too many techniques and not enough basic insight is in the area of management training. We abound with different methodology - T-groups, case studies, games (better, if on a computer) etc., but so little effort is applied to the heart of the matter: What is common to these efforts, what are the assumptions underlying them? What makes them work - if they do?

Glory and profit now goes to he who develops a new technique that can be marketed rather than a theory that can contribute to the efforts of his fellow scientists.

Many of our techniques are now beginning to be taught at the undergraduate level, -- in courses on personnel procedures. In the future, B.A.'s may handle most of what Ph.D.'s are doing today. Constructing a biographical inventory and running a routine factor analysis will be a matter for programmers. Anything of a psychological nature, any penetrating understanding of human behavior, is being squeezed out of those procedures. We cannot live long on techniques. Industrial psychology is in danger of drifting toward becoming merely a technology and properly should be taught along with how to prepare a job description, a wage survey, a job analysis scale, how to administer a test -- a cookbook of recipes.

(Parenthetically, I was glad to see in Bernard Bass' Tip Newsletter article that a few of the Business Schools are beginning to drop the teaching of personnel practices and to adopt a broader approach to the teaching of management functions. It reflects on our past that the authors felt obliged to call the new curriculum, "Organizational Psychology" rather than "Industrial Psychology".)

As a result of this state of affairs, we find ourselves concerned about the prestige and status of industrial psychology. First, some comments as to how we are perceived among other psychologists. Some members of the APA working on problems in industry do not join Division 14 because they do not want to be identified as a technician or as having a limited perspective on problems. We also have learned of the problems of attracting our share of top graduate students to our field. Members of your Executive Committee at its June meeting felt this was due to the lack of funds for supporting graduate students in our field. This lack of funds, in part at least, reflects our prestige or image among other groups in academic and non-academic circles.

Call for Nominations for Division 14 Offices

See back of insert for list of past officers

ELECTED OFFICERS OF THE DIVISION OF INDUSTRIAL PSYCHOLOGY

President	Secretary-Treasurer	Division Representative	Member-at-large Exec. Committee
Henry, E. R.	Taylor, E. K.	1956-57 Taylor, E. L. Tiffin, J. Wallace, S. R. Baier, D. E.	Blum, M. L. Baxter, B. McGehee, W.
Lawshe, C. H.	Crissey, O. L.	1957-58 Tiffin, J. Wallace, S. R. Baier, D. E. Crissey, O. L.	Baxter, B. McGehee, W. Katzell, R. A.
Tiffin, J.	Crissey, O. L.	1958-59 Baier, D. E. Crissey, O. L. Baxter, B. Stagner, R.	McGehee, W. Katzell, R. A. Moore, J. E.
Taylor, E. K.	Crissey, O. L.	1959-60 Crissey, O. L. Baxter, B. Stagner, R. Blum, M. L.	Niven, J. A. Moore, J. E. Meyer, H. H.
Katzell, R. A.	Baxter, B.	1960-61 Baxter, B. Stagner, R. Blum, M. L. Niven, J. R.	Moore, J. E. Meyer, H. H. Ely, J. H.
Crissey, O. L.	Baxter, B.	1961-62 Baxter, B. Blum, M. L. Dunnette, M. D. Niven, J.	Ely, J. H. McCormick, E. J. Meyer, H. H.
McGehee, W.	Baxter, B.	1962-63 Baxter, B. Ash, P. Dunnette, M. D. Meyer, H. H.	Ely, J. H. McCormick, E. J. Fleishman, E. A.
Wallace, S. R.	Ash, P.	1963-64 Ash, P. Dunnette, M. D. Owens, W. A. Meyer, H. H.	McCormick, E. J. Fleishman, E. A. Stagner, R.
Baxter, B.	Ash, P.	1964-65 Ash, P. Meyer, H. H. Owens, W. A. Seashore, S. E.	Fleishman, E. A. Bass, B. Mahler, W. R.
Stagner, R.	Ash, P.	1965-66 Ash, P. Owens, W. A. Seashore, S. E. Bass, B.	Parrish, J. A. Mahler, W. R. Perloff, R.

Note: Refer also to membership of Division 14 listed in the Directory.

(Bob Perloff, in the August issue of Tip our Division's Newsletter, documented the low level of prestige the industrial psychologist has in the eyes of fellow psychologists and graduate students. He then made an appeal for ideas as to how this condition could be corrected. The theme of this address is one answer to his appeal.)

We are also concerned about the manner in which management and the public regard us. We are known largely as testers and selectors. Does management look to us as being particularly skilled in motivation or in learning problems? We find that management rarely has a sound understanding of the spheres of interest of the psychologist. This led your Division to prepare and distribute a job description booklet, "The Psychologist In Industry", a public relations piece designed to spread a broader image of our functions and competencies. While the booklet helped, it did not solve the problem. Our public image deeply concerns us, and it should.

For a description of our image, would you want to risk the table of contents of our most popular journals as its representation? The Journal of Applied Psychology? Personnel Psychology? The new Journal of Industrial Psychology? Many of you are turning to other journals to submit your material. Why? Do you wish to avoid being classified along with the image of these journals?

I know that many of you are concerned about these journals. Some of you feel that the solution is for Division 14 to seek control of their publication. I believe the problem is not the editor or his policies for selecting material. The problem is more likely in the nature and quality of research that is offered for publication. We produce a seemingly endless stream of fragments leading to nowhere. We produce many new concepts without tying them to anything existing -- largely because we lack something fundamental to which to tie them. We add to our jargon regularly and unnecessarily, making the subject unduly complicated and without adding to our insight into behavior.

Make no mistake in thinking I am decrying the smaller studies. Such studies could make their proper contribution. But to what? We have been so busy building fragments that little attention has gone into asking where these fragments fit. As Sanford wrote, "The accent today is on the production of knowledge rather than its organization". The function of

synthesis is rather neglected today. (And I am not urging the assemblage within two covers of a series of articles related to one topic.) Sanford urges that if we must study specialized bits of knowledge, we should devote energy to fitting them into the larger picture. We have lots of independent, interesting hypotheses -- each one apart from any broad theory that ties them together.

To recapitulate, we in Division 14 have several concerns: the quality of our research contributions; our diversity; the growth of other professional groups in our fields of activity; our prestige and status among management, the public, and fellow psychologists; our journals. My argument is that we should not deal with these as individual problems. They are all symptoms of a lack of a fundamental, coherent conception of what psychology means. We need to return to rather simple concepts of human behavior -- not splinters, but broad statements explaining why people do as they do. From these should spring our research. From these should spring our image. Around these we can build some unifying science as a sound basis for diversity.

I have mentioned this point of view to a few of you. While it has sometimes struck a responsive chord, it has also met with disagreement. I'd like to mention some of the negative reactions and take this opportunity to answer them.

Our reaction is, "Psychology is young, especially psychology in industry. It is too early to build any theories. We don't know enough yet and would only hamstring ourselves". My feeling is that it's not too early. It may be too late. We need some structure to guide our efforts. To avoid endless fragmentation, theory is an aid and not a restriction when properly used.

Another reaction is: "We're applying psychological knowledge; not trying to build theories. That's the responsibility of other people in the science." The person with this reaction is often not applying psychological knowledge at all, but rather he's selling some tool or technique developed by psychologists and using it on the local scene. He is a "gimmick peddler". He is not practicing psychology, but making a living on past products -- not new insights. When today's technology goes out of date, this technician will be left high and dry.

Others who are indeed trying to apply psychological knowledge would be greatly aided if their work more often did spring from the use of a fundamental system. It would richly facilitate their efforts. It would provide a point of leverage for their research and for their recommendations. It would lead them to greater coherence as well as to creativity.

Next reaction. The psychologist working full time in industry often says, "I couldn't be caught dead talking about theory in my company. I have to be practical. Management would really think I'm a head-shrinker". Obviously, when talking with management, you don't wear your theory on your sleeve and you don't have to exploit the term. Secondly, these self-called "practical" psychologists do have theories. They do operate by some rationale but these are unstated, unformalized, incomplete, or limited in scope. They are not operating aimlessly but rather without conscious direction. I feel our professional concerns would be reduced if these loose ideas were more consciously formalized. Kurt Lewin wrote, "... there is nothing so practical as a good theory".

Another reaction is: "Not only wouldn't management pay for my working on theory but I just don't have time for that kind of thing". I'm reminded here of a sign I saw in an office recently. It read, "If you don't have time to do it right in the first place, when will you get time to do it over?" If we are too rushed to consider our work in terms of some "conceptual foundations", we will not save time in the long run.

Time would be saved if, after each bit of research, we asked, "How do these results fit into my general theory of behavior?" "Should my theory be modified?" Or, better yet, before the study is done, ask, "How can this problem be stated in terms of my theory?" My thesis is that the study will become more meaningful, the design of the study will have more power or efficiency, and that the help to the union, management, or employees will be greater. Theory is not an abstraction on the shelf but a daily tool, guiding us at all phases of our work, from conception of the problem to reporting the results. With this approach our research fragments will contribute to our conceptions and will "add up" to something meaningful.

The business setting is generally antipathetic to the word "theory", though perhaps less so today than it used to be.

For indeed, "making up one's mind what data are relevant" and "possessing a theory" amount to much the same thing. Data are meaningful only on the basis of some pre-existing conceptions, no matter how unarticulated that theory may be.

Let us not perceive that we are withdrawing from the world of practical affairs when we approach our work in terms of theory. It is a return to being a scientific psychologist. Many of us have lost claim to that name. We may solve problems but not through special psychological knowledge or skills. Rather the skills are those of a good problem solver with training in any academic subject. Some of us have become excellent at this, but are we not in danger of losing our identity as a psychologist?

I was so delighted to have on our program yesterday morning the symposium on Herzberg's two-factor theory of motivation. Regardless of how you may feel about the theory itself, it has already more than paid for itself through the research and thinking it has stimulated on a vital subject previously ignored by psychologists in industry.

Dunnette, in his address, "Fads, Fashions, and Folderol" perceives that theories and models are a fashion among us today. If he will allow me to exclude null hypotheses as not being theory, I see relatively little theory explicit in industrial psychology. I fully agree that we do not need theories about minutia. I am less convinced that we do not need clearly stated principles about what may appear to be obvious in human behavior. I conceive the use of broad fundamentals as a counter-Agent - a "007" - to combat fads and folderol.

To be sure, there are pitfalls in adhering to a theory, - but there are also dangers in operating a power mower, a sports car, or even a fountain pen. Theories need not be a constraint. Theories need not be a source of friction. In our abandonment of theory, we may well have forgotten how to use them effectively.

My discussion thus far has derived from looking outward on the state of the world of industrial psychology. For a few minutes now I should like to report a more personal story.

My convictions about the value and role of theory do not grow out of an exercise of logic. During the last three to four

years I have been struggling to identify some general statements about human behavior that would help to make sense for the data and observations from our marketing studies in Prudential. I should like to share some of my experiences, both pleasures and pains. Since there is not time in these limited moments to provide the details of the current formulation, I will make them available for your inspection at the end of this meeting. Please don't judge the validity of my message by the quality of the handout. It is offered chiefly to prove that I have, as the gambler says, "put my money where my mouth is".

Let me begin with some of the frustrations experienced in this work. First of all, as already mentioned, it is difficult to find time to devote to the development of these ideas. A correlate of the lack of time is the frustration of not being able to read all the material that should be covered. I make no pretense of presenting any neat summary or review of the available literature. Nor do the principles offered represent the culmination of a careful exhaustive search of the literature. What I have read, however, was often disappointing. So many statements are only classifications or listings of factors influencing behavior; I am looking for something more dynamic! Other presentations were unsatisfactory for they dealt with a limited piece of experience or a special set of conditions, like, for example, the work on dissonance theory or on the level of aspiration. I feel something broader is needed.

Another kind of frustration comes with trying to explain one's ideas to another psychologist. While I have tried to avoid using any new terminology, I get tripped up by the multiple meanings of our present psychological vocabulary. I cite the words, "need", "drive", "motive" as a few examples. Part of the problem in communicating lies in my own failure to define carefully each term. Associates have helpfully prodded me on this need many times.

But apart from problems of terminology there is difficulty in communicating because each of us has an unconscious model of behavior and we resist thinking about behavior in the other fellow's terms of reference. Thus there is danger that the principles you evolve may turn out to be a very personal thing. But nonetheless it can be very valuable to you.

The results of my struggle have not been particularly new or revolutionary. More-over, they seem to be rather obvious statements based on ancient hedonic principles. In answer to my daughter's questions as to what my principles are all about, I found they could be condensed to say that people do those things which they perceive will bring them the results they want. A rather trite concept. But the amplification and deductions from this point are bringing rich rewards. What are some of these benefits?

The most important is the help the principles have been to me in guiding our part of the research program in Prudential. Diverse problems that previously have been expressed in many different ways begin to fall into place. They now become more understandable (to me, at least). The theory or model provides a consistent approach to thinking about problems and to preparing study designs. I hope that future research results will not be fragments but will contribute to each other. Furthermore, the theory keeps me aware of the breadth of factors that must be considered in each problem.

Let me mention some events that have particularly excited me on this work in recent months.

One of the most difficult areas in the selling of life insurance is the understanding of the behavior of the Agent as he goes about seeking likely customers. We call this activity, "prospecting". The industry has published numerous volumes on how this activity should be conducted. Whenever Agents congregate, they share their latest methods of how to search out the "hot leads". You would think by now we would have observed well-organized effective systems of prospecting being followed, at least by experienced men. But instead we find that prospecting is the problem Agents most commonly report. There do not seem to be consistent systems followed by many Agents for any length of time. Also, they often undertake work activities that seem to have little pay-off. They avoid, despite Company promotion, certain activities that can be proven to result in a higher ratio of sales to calls. With these observations in hand we began to relate our evolving model to this picture of confusion. The excitement has come in seeing the observed behavior now begin to make sense. Both a patterned, stable approach and a seemingly aimless floundering become understandable in terms of the model. We see some hope of defining those variables by which the

Agent can be directed toward optimum success. We believe our new approach to understanding prospecting behavior will now be more realistic.

True, we might have worked toward a solution to the problem without a theory. Many of us are doing it every day. My contention is that we seem to be making some progress on a long-standing problem much more easily in light of a model, however simple, limited, and obvious.

A second pleasure has been to find a book that presents principles of behavior that are very similar to those on which we had been working. The book is "Work And Motivation" by Victor Vroom. He reviews the massive hodge-podge of results in the field of job satisfaction and motivation, and then evolves some principles that seek to make sense out of this confusion. This kind of synthesis of fragments into some principles deserves the highest praise. Other reviews of literature usually stop with brief descriptions of the welter of articles or by noting groups of diverse approaches to the problem. In this case the author has attempted to create some propositions which pull together the myriad pieces. Vic and I recently spent a stimulating day together comparing variations in concepts and identifying areas needing further refinement.

(Incidentally, Marvin Dunnette has beautifully illustrated the value of theory in dealing with practical situations by using Vroom's theory in considering questions about managerial compensation.)

I recently obtained from another independent source some confirmation that our principles were in line with the thinking of others. I received in the mail this summer a study questionnaire whose format seemed to be built closely around the behavior principles that appear in our model. The questionnaire was from Ross Stagner who said in his covering letter that he was "adopting a questionnaire model we have been using here with surprising success in getting analytical data on complex social questions". Ross tells me that the format was devised by Rosen and Komorita, based on a concept of subjective expected utility, which they will be describing in an article shortly.

A final excitement to be mentioned came more recently. In thinking about the three primary variables which determine

behavior in our model, I was suddenly struck by their similarity to the three primary factors which Charles Osgood derived in his work on the meaning of words. Osgood's factor analyses led him to three factors that were most clearly interpretable. He called them the evaluative factor, the potency factor, and the activity factor. These factors appear to bear a certain relationship to the three variables in our current model. The activity factor relates to the behaviors of the individual. The evaluative factor relates to the values perceived for the outcomes of the behaviors. And the potency factor may be taken to express the way behaviors lead to outcomes with various perceived probabilities. It will be most interesting to pursue this relationship further. Bob Guion, in his paper on the "Meaning of Work" also touched on the relationship of his factors to those of Osgood. It should not be surprising to find that the dynamics of behavior and the fundamentals of our language have a common core. It would be most rewarding to find close ties in such widely different lines of research. These jigsaw pieces do fit together.

In summary, my message urges you, each one of you, to turn some part of your attention to the development of your own broad theory of human behavior. At least adopt or adapt something that you put in writing and then apply it as a conscious guide in your daily activities. To find time take some now given to the development of techniques. Spend more time determining where we are going and less on how we are going to get there. I'm not suggesting you should abandon your empiricism but rather give it some roots. As we all more consciously think of these fundamentals, we will create a body of knowledge that makes sense rather than confusion. We will create an image of a scientist rather than a technician. We will have status of which we can be proud. We will draw together rather than apart. This advice may well pertain not only to the variation among psychologists in industry but also to the many specialties within psychology. Thinking of fundamentals will serve to bring all of us closer together.

*Presidential Address, Division of Industrial Psychology, presented in Chicago, Illinois September 5, 1965.

Marvin Dunnette's Presentation will appear in a future issue of TIP.

(Chairmen of symposia and of invited addresses were asked to submit synopses of their programs for publication in TIP. The following summary was the only one received in time for publication in the current issue of TIP).

Identification and Initial Development of Management Talent-- A symposium

"Identification and Initial Development of Management Talent" was the subject of a symposium at the APA meetings. Dr. Donald L. Grant, American Telephone & Telegraph Company, was chairman. The panelists were Dr. Robert B. Selover, Prudential Insurance Co., Dr. Herbert H. Meyer, General Electric Co., Dr. William G. Mollenkopf, Procter and Gamble Co., and Dr. Felix M. Lopez, Jr., Port of New York Authority.

Dr. Selover presented the findings of studies in his company regarding factors related to advancement in management. The studies show that college graduates who did well scholastically, who obtained relatively high test scores, who participated in college activities, who were leaders in college or in the military service, and who accepted employment with the Prudential soon after graduation from college progressed more rapidly and further in management than did graduates lacking these characteristics.

Dr. Meyer presented the findings of G.E. Co. studies on the characteristics of young engineer managers. The studies indicate that engineers promoted to managerial positions early in their careers are distinguished more by motivation and personality than by ability factors. In particular, broader interests, aspirations for administrative responsibilities, greater self-confidence, and less concern with security distinguished these men from their non-manager counterparts.

Dr. Mollenkopf discussed methodological approaches developed in his company for identifying appropriate criteria for evaluating managerial performance. The methodology involves interviewing key managerial personnel to identify the elements, use of questionnaires to ascertain the relative importance of each element, and refinement of the questionnaire data by means of factorial analysis. The results of such studies are useful in identifying characteristics of

prospective managers and in developing instruments for evaluating managerial performance.

Dr. Lopez presented the results of several studies in the Port of Authority directed at evaluating experience in recruiting and developing college graduates who had been employed with the expectation that they would help fill the needs of the organization for managerial talent. Though experience with the activity has been generally satisfactory, the findings throw considerable light on problems requiring further study and effort. Included are the need for giving appropriate consideration to non-cognitive factors in identifying managerial talent, the impact of organizational values on selection and subsequent advancement, and the effects of frustrations early in a man's career on his subsequent development.

In brief, the symposium elicited reports on research where progress is being made in identifying management talent. It also focused attention on areas where further research effort is necessary.

Donald L. Grant

1966 PROGRAM

THE 1966 DIVISION 14 PROGRAM

James J. Keenan, Chairman, Program Committee
Dunlap and Associates, Inc.

The 1966 A.P.A. convention will take place in New York City on Friday, September 2nd through Tuesday, September 6th. Over this period, Division 14 will have an allotted 29 hours of program time to be put to interesting and rewarding uses by the membership. The thoughts of the Program Committee on how this goal will be met are briefly listed here.

The theme of the 1966 Division 14 program will be Human Performance in the World of Work. As far as possible, our papers, symposia and other types of discussions should be explicitly identified with "human performance"---organized around topics concerned with observable human performance in industry, e. g., personnel capacities and limitations (individual human functioning), interpersonnel interactions, personnel-equipment, personnel-ambient condition interactions.

As a high point, or culmination, of this theme the program committee is preparing for an entire day devoted to a series of symposia or other discussions given over to a topic such as "Toward a Theory of Human Performance in Work." The time seems to be ripe to attempt to pull together a performance "theory." Brent Baxter's outgoing Presidential address at the Chicago meetings echoed the need to abstract our extant empiricism and to attempt to build an applicable set of theorems or postulates from the humpty-dumpty pieces.

Division 14's needs in this regard are, of course, not unique within APA but this Division should take the leadership among the divisions to discuss and build publicly a theoretical approach to its business. To effect such a day-long meeting, and indeed the theme of the program, the committee solicits participation, comment and assistance from the membership and is currently inviting other APA divisions to join in our theme discussions.

In general, the Division program of events will follow previous years, that is, it will contain paper-reading sessions and symposia. The Division will use a portion of its allotted program time for invited addresses and related discussions. Members are encouraged to suggest topics and/or speakers to the Program Committee Chairman. All arrangements for invited speeches will be made by the Program Committee.

Division 14 will attempt to provide reports and discussions of Industrial Psychology in and/or applicable to the emerging industrial communities, e. g., in Africa, South America, and Asia. Such presentations will generally be in the evenings during the convention and will enable round-table discussions. Included tentatively in the planning for these discussions are reports of Inter-American Congress meetings at Lima, Peru and the International Congress meetings at Moscow, USSR. Members who are planning to attend these meetings are urged to communicate with the Division Program Chairman as early as possible before March 1.

Deadlines and Requirements

Deadlines and rules for participating in both the larger APA events and in the Division events are, of necessity, firm and fixed. They will be presented in the December 1965 issue of the American Psychologist. The Division policies are generally as follows:

Papers: One hundred-word abstract (2 copies) plus 300-word summary (4 copies) to Division Program Committee Chairman before 1 March 1966.

Symposia: Two hundred-word statement (5 copies) on nature and importance of suggested topic plus names, institutions and topic of each participant before 1 March 1966.

The Program Committee generally suggests that acceptance by the participants be assured prior to submission of a proposal for a symposium and that the 200-word statement be accompanied by brief 100-word synopsis of each planned presentation.

Audio-Visual: Requests for standard audio-visual equipment must accompany abstract of paper or symposium.

Other Events: Suggestions and proposals for other events, e. g., round-table discussions, should be directed to the Program Committee Chairman as early as possible preferably before 1 January 1966.

All Events: Participation in all Division Program events is governed by the rules of the APA Program Committee and by the standards set forth in the Division's Guidelines for Presentation at A.P.A. Conventions, a copy of which will be forwarded to each participant upon acceptance of his proposal.

Call for Participation

There you have it: a synopsis of the 1966 (New York) program for Division 14. Early suggestions and proposals for participation will be welcomed by the Program Committee and we will keep you informed.

James J. Keenan, Chairman
Robert M. Guion
Feliz M. Lopez
William B. Chew
Lyman W. Porter
Jack A. Parrish

RESEARCH NOTES

THE RESEARCH PROGRAM OF THE U. S. ARMY PERSONNEL RESEARCH OFFICE

J. E. Uhlener
Director of Laboratories
U.S. Army Personnel Research Office

The U. S. Army Personnel Research Office, (APRO) under the Army's Chief of Research and Development, is a research agency whose activities are directed toward enabling the Army to make best possible use of its manpower resources, both potential and effective.

In one sphere of its activity, APRO is concerned with research that seeks to improve man's effectiveness in man-machine systems of the Army--research on the effects of work methods and conditions on the efficiency with which current and future Army jobs are accomplished. The experimental or applied experimental psychologists who conduct this research deal with variables influencing behavioral capabilities and man-machine interactions under various tactical and strategic conditions. They tend to view the limitations on performance imposed by these conditions as presenting psychological problems to which laboratory experimentation and simulation offer a basic approach.

In a second sphere of activity, APRO engages in measurement research emphasizing the development of principles, instruments, and procedures to increase the effectiveness of screening and differential classification of officer and enlisted personnel and including the evaluation of behavior under conditions in which unusual demands are placed on individuals, groups, or systems. The professional staff in this area are quantitative psychologists or psychologists trained in psychometrics.

The present organization is headed by a military commander. Under a Director of Laboratories, five laboratories share the research responsibility. The organization is staffed by about 140 research and support personnel. About 75 are professionals--measurement and experimental psychologists, mathematicians, statisticians.

Each of the five laboratories concentrates on a research area delineated by a set of allied human factors problems:

Support Systems Laboratory, headed by Dr. Joseph Zeidner, conducts research toward improving output of Army man-machine systems such as image interpretation and command information processing systems.

Combat Systems Laboratory, headed by Dr. Philip J. Bersh, focuses field and laboratory experimental effort on human factors demands of present and future combat developments.

Statistical Research and Analysis Laboratory, headed by Mr. Cecil D. Johnson, provides statistical services for the other laboratories; also develops mathematical models to assist in solution of personnel management problems.

Military Selection Laboratory, headed by Mr. Edmund F. Fuchs, emphasizes psychological measurement to attain optimal enlisted assignment.

Behavioral Evaluation Laboratory, headed by Dr. Leonard V. Gordon, specializes in human factors problems involving psychological requirements of individuals and small groups performing under psychological and environmental hazards.

HUMAN PERFORMANCE IN MILITARY SYSTEMS

APRO's research on problems of human performance in military systems divides itself into two approaches: One approach is to study each small man-machine system separately. In the Army's image interpretation systems, for example, which produce utilizable intelligence information from aerial surveillance photos, the human performance problems are unique to the system. In no other set of jobs do individuals use the same viewing techniques, the same skills of identification and estimation, the same trained conjecture, in the attempt to read "ground truth" from aerial reconnaissance imagery. Increased effectiveness in the interpretation process must come from intensive study of these functions in the system in which they occur as a means of deriving principles for families of systems that are to follow.

APRO's Surveillance Systems research project, initiated in May 1963, represents a deliberate tie-in of human factors research and systems development. The Surveillance Systems research laboratory under construction at APRO has been designated by the Army as an experimentation center for design concepts for man-machine systems associated with image interpretation. The laboratory incorporates simulation of a computerized facility for the processing and interpretation of tactical imagery. The broader research program on surveillance systems includes studies on interpreter techniques in a surveillance facility, influence of displays on image interpreter performance, man-computer functions in an advanced image interpretation processing system, and integration of men, equipment, and procedures in information processing.

In another system-based research and development effort, APRO has undertaken to enhance the effectiveness of the human factor in command information processing systems. To meet the military requirement for rapid and continuous updating of vast amounts of data, the Army is developing a network of automated systems. These systems must screen masses of incoming data from a variety of sources, sort and store the information, retrieve and display relevant items when they are called for. The needed picture of events must be assimilated from alpha-numeric and symbolic displays as a basis for tactical decisions. Such systems can measure up to the demands imposed upon them only if the human element is so interlaced that man can be maximally effective in making the right decisions rapidly. The cornerstone of a research program to support such systems development is more research-based knowledge about the process of human decision making.

The Combat Systems Laboratory, in contrast, concerns itself with problems common to a number of systems. The Combat Communications Task, for example, conducts research applicable to the interchange and apprehension of voice and signal in a variety of communications systems. Findings are applicable in increasing the efficiency of radio-telephone communications in tactical environments and in improving human factors techniques for tactical electronic countermeasures. One study investigates use of narrow-band filtering to increase intelligibility of voice messages embedded in noise, taking advantage of the integrative properties of the hearing mechanism. Research is also conducted to

improve operator performance through redundancy, repetition, and enhanced discrimination of speech sounds.

The noise-and-distortion-resistant qualities of the message languages are also the subject of research. Emphasis is on selection of the language elements for ease of discrimination and for maximum distinctiveness in relation to representative samples of noise from environments of interest.

The Monitor Performance Task, in the same laboratory, emphasizes applied vigilance research through simulation of relevant aspects of selected monitor jobs in a laboratory setting. Here, factors associated with signal, task, environment, and the individual are investigated simultaneously in systematically varied combinations. Problem areas designated for investigation include effects of display and response complexity on performance, determination of optimum work-rest cycles, use of simultaneous multi-sensory monitoring to increase total monitor capacity, and prediction of performance trends during monitor cycles.

The experimental scientist in the systems laboratories has at his disposal the body of evaluative techniques and methodology which APRO has developed or adapted--contributions to criterion development are particularly applicable. The concept of individual performance evaluation has broadened to include the quantification of the output of the system of which man is apart. Additionally, the experimenter has at his disposal the methods of other human factors disciplines, whether in the varied experiential background of the staff or in the heterogeneity of available contract and consultative services.

MEASUREMENT FOR SELECTION AND ASSIGNMENT

In its human performance research, APRO studies man as a functioning element of the Army's operational systems. APRO's measurement research concentrates on man as a potential element of those systems.

As a matter of historical interest, the starting point for military personnel research was the creation of a test for mental screening of the nation's manpower during World War I. APRO traces its origins to the developers of that test. Some few of the psychologists who participated in the World

War I effort were members of the group organized under The Adjutant General's Office to develop the selection and classification measures of World War II. The widely known AGCT of World War II was used both for screening and as an aid in classification for training and assignment in Army

The Armed Forces Qualification Test now used by all the services in the initial screening of civilians for military service was the first psychological instrument to be the object of Congressional action. The Universal Military Service Act of 1948 established a mental standard based on the AFQT.

Although the AGCT sampled several areas of ability, it provided only a single estimate of trainability in Army jobs. The concept of differential classification capitalizes not only on individual differences but also on differing patterns of abilities within individuals. APRO's efforts to develop a broad application of the concept led finally to the Army's universal use of the Aptitude Area system--with demonstrated increase in the amount of talent available for assignment.

Back of the research on operational programs is intensive research to probe new avenues of psychological measurement and its uses, to extend the capability of psychological testing. On-going projects in the Military Selection Laboratory deal with the development of abbreviated tests, possibilities of testing by machine, and integration of screening and classification procedures.

Difficulties inherent in matching men and jobs have always presented a challenge. When the many differing aptitudes of each individual must be considered in relation to a host of different Army jobs--and assignment is further hedged by quotas, special one-time demands, and numerous other stipulations--the process becomes exceedingly complex. Building on the Aptitude Area system, APRO's statistical research psychologists set about formulating a workable solution to the Army's allocation problem.

Applying mathematical models to manpower allocation--notably the method of optimal regions--APRO research scientists have developed computerized assignment programs which take into account a multiplicity of factors influencing individual potential for classes of jobs. The objective is to allocate enlisted men to training so that the aggregate

quality of predicted performance in Army jobs is as high as the human resources available at a given time will permit.

Now, a brief look at APRO's efforts to provide military management with research-based principles and instruments to aid in the selection and assignment of the Army's leadership force.

The major objective bases for selection of students to the U. S. Military Academy, Reserve Officers Training Corps, Officer Candidate schools, and for direct commissioning from civilian life are ability, personality, and interest measures and standardized interviews. APRO is currently engaged in a long-term program to improve selection and assignment of commissioned officers through instruments and procedures which will differentiate potential in three general classes of duty assignment--combat, technical, and administrative.

Criterion evaluation of officers in the validation sample is near conclusion. An Officer Evaluation Center was activated expressly for the staging of an integrated field exercise incorporating 15 situational performance tests. To this center officers who have served 18 months in combat, technical, or administrative jobs come in small groups. Each officer plays the central role in the problem situations, and his performance is systematically observed and recorded. The staff at the Center has been schooled in their supporting roles by APRO research psychologists who designed the exercises. Analysis of these data will guide the selection and refinement of instruments for a Differential Officer Battery which, in operational use, will permit military management to assign officers so as to make better use of their capabilities.

LONG-RANGE CONSIDERATIONS

Human factors research has assumed a substantial supporting role in manpower management's efforts to keep pace with--and anticipate--the changing technological needs of the Army.

This orientation is as apparent in measurement research as in research on human performance in military systems. APRO laboratories concentrating on selection and classification gear their objectives to the high standards of man-for-

man effectiveness which must be met if the Army is to carry out its world-wide mission. Research planning looks to new jobs and new human functions essential to new weapons systems and new tactical concepts. But selection and classification alone--even when training is added--can by no means do the whole job of making man an effective performer in the Army's systems.

When in 1961 the U. S. Army Personnel Research Office shifted its position in the Department of Defense from The Adjutant General's Office to the Office of the Chief of Research and Development, the shift represented heightened emphasis on problems of manpower utilization, pointing up objectives of some years' growth within the organization. In its 25 years of operation, APRO has developed a body of research capabilities related to the quantification of human performance. The thinking and planning that went into this development led to more inclusive human factors research directed toward maximizing the productivity of human effort.

This approach may be characterized as a kind of job engineering in which the characteristics of personnel and their abilities and limitations, work procedures, personnel placement within a facility, man-equipment interactions--all may be experimentally varied to determine by what means a system can operate at peak effectiveness. Personnel costs and dollar costs have yet to be reconciled by means of a common metric.

APRO's current approach lays chief emphasis upon systems under development or contemplated for the future. A powerful contribution human factors research can make to the Army's technological growth is to delineate the role of the man in these systems, applying studies of psychological and behavioral capabilities and limits in shaping the human functions in such future systems.

VALUES AND GOALS OF THE ENGINEER-SCIENTIST AS RELATED TO EFFECTIVENESS IN AN R & D LABORATORY

S.H. Peres*
Sandia Corporation
Albuquerque, New Mexico

Traditionally, the industrial psychologist has spent the majority of his time in the selection-classification, performance appraisal, morale, etc. area. Further, it appears that the samples which we use are of the blue collar, assembly worker, sales personnel, general management, etc. type. There are precious few of us who have had the opportunity to work exclusively with professional people, especially engineers and scientists.

I would like to summarize some of our research undertakings with engineers and scientists at Sandia Corporation, which is a wholly-owned, Western Electric subsidiary of 8,000 people, involved in nuclear research and development. Naturally, we have done studies in the traditional areas, such as selection, performance evaluation, attitude surveys, and the like; but it has been our observation that the real payoff in dealing with scientists and engineers will come in studies dealing with the impact of the organizational structure upon the values, goals, and motivations of scientific personnel.

Sandia Corporation, like most R & D laboratories, tries to select its young engineers and scientists by using extremely high scholastic achievement as a criteria. We are dealing with a very homogeneous population in terms of superior academic achievement. Some of the problems we are trying to get some insight into are:

1. What are the relationships between scientific career motives and scholastic achievement in college?
2. What impact do the values and goals of college faculty have on the young engineer?
3. What is the impact of the organizational climate upon value and goal system of the young, incoming engineer?

4. What changes take place in these values and goals during an individual's stay in a technical organization and their relationship to perceived technical performance?
5. What is the relationship between "creativity" and supervisory performance ratings? What are the differences in job motivations between high- and low-rated, experienced technical employees and the relationship between these ratings and the orientation (either research or "hardware") of their supervisor?

In terms of scholastic achievement and scientific career goals, we find that the high scholastic achiever describes himself as the stereotyped scientist; that is, interested in theoretical research and complete freedom of activity but with little interest in entering management and, in general, little interest in the world of business. The lower scholastic achiever appears to be the more hardware- or applied-oriented individual, who looks more like a Business Administration major.

Generally, our findings indicate that the young college graduate loses very rapidly his scientific and professional orientations and swings to the extreme of the organizational values. Within six months from time of hiring he values highly being liked by his supervisor, spirit of competition, and making money. There is a serious erosion of the professional attitudes. After one year and two years of employment, a slight shift back to the original values and goals occurs, but the newly-learned organizational orientation always remains stronger.

In terms of the values, goals, and job motivations of the experienced engineer and scientist, we find that the highly evaluated individual describes himself in terms of having a practical engineering orientation and is interested in turning out tangible evidences of his work. He has a strong interest in a status job and in entering management. On the other hand, there seems to be two distinct "types" in the low performance group. One type describes themselves as the creative, outspoken, critical malcontent, while the other describes themselves as the security, "easy job" seeker.

Utilizing the test battery developed by the Institute of Personality Assessment and Research, University of Cali-

fornia, we find many significant negative correlations between creativity indices and supervisory ratings. While we think that rather than measuring creativity we are perhaps measuring curiosity, we find in light of our other findings that this result is extremely important. What does it add up to? We have a real strong hunch that these findings are not unique to this particular research laboratory but, rather, it is widespread through most R & D laboratories. One reason might be, of course, that the majority of R & D laboratories are spinoffs of large manufacturing-production organizations, and the heritage of the practical, applied approach is a hard one to lose in a research and development setting.

Note: These studies will soon be in print, and the reader is certainly invited to address the author in terms of any questions, etc.

*Now at General Electric Company, Crotonville, New York.

Personal History Item Catalog

The Division of Industrial Psychology wishes to announce the continued availability of a catalog of Personal History Items. The catalog provides a classified list of several hundred kinds of information that have been sought through biographical data blanks of various kinds. It is believed that this catalog would be useful to those conducting research or preparing questionnaires in this field. The catalog was prepared by a Committee headed by William A. Owens, Purdue University.

A copy is available free to members of Division 14, and others may obtain a copy for \$1.00 each. For copies write to Dr. Phillip Ash, Inland Steel Company, 30 Monroe Street, Chicago 3, Illinois.

Dr. Owens reports that he has sent a letter to all known recipients of the catalog (approximately 200 persons), asking about the merits of the items. Thus far he has received data from six persons, twenty others have indicated research in progress with data hopefully to be made available soon; and 83 persons have indicated no real opportunity to use the catalog yet. Many of these say that they hope and plan to use the catalog in the near future.

Dr. Owens believes that probably the first follow-up was made a little too soon, but is encouraged by the amount of activity reported. He asks that the readers of TIP accept his thanks here mentioned in lieu of 108 individual notes.

ETS Research on Performance of Engineers in an Industrial Setting

Thomas B. Sprecher
Educational Testing Service

Three Research Bulletins from Educational Testing Service are concerned with the performance of engineers in an industrial setting. The first, RB-65-24, demonstrates the feasibility of using factor analysis to analyze anchored rating scales, as proposed by Smith and Kendall, into separate sub-aspects, and suggests that concepts like "Technical Competence" may actually be viewed either as absolute or as relative performance. In the former view, technical competence is judged solely on the basis of whether or not solutions to problems are achieved; in the latter relativistic view it is only success relative to the performance of other men that counts.

The second Research Bulletin, RB-65-26, presents first and second order factors of 197 engineers' judgments of dimensions of their jobs, and suggests some verification for a job performance taxonomy based on Guilford's "Structure of Intellect" model. Three factors common to this study and two other independent studies were "Estimating costs and controlling expenses," "Developing and utilizing personnel," and "Drawing." Other factors were common to two of the three studies or "disagreed" simply because one study broke the general concept down into more detail.

The third Research Bulletin, RB-65-27, indicates the methodological advantages of deliberately manipulating reports of engineering achievement to show contrasts between the views of engineers and their supervisors who had judged the same products. Supervisors responded positively to increases in the dollar savings reported, while engineers themselves responded positively to increases in the additional contributions reported.

Requests for the particular Bulletin or Bulletins of interest should be sent to:

Dr. Thomas B. Sprecher
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PROFESSIONAL NOTES

Is Perfect Prediction a Desirable Goal?

Bruce A. Springborn
General Motors Institute

The year is sometime definitely in the future. Twenty people are applying for a high level executive position. All candidates fill out prediction instruments which are rapidly scored upon their completion. The results are fed into a computer and a selection of one man is made. On the basis of this selection it is known with 100% accuracy that this candidate will be a successful executive.

The above possible situation has stimulated comments by educators in the business field, such as the following by Edith Sands (1964):

When top management can be made to appreciate the value of research in personnel to the same extent as it does in marketing its products, it will find the solution to many of its problems in selecting executives. Some of the billions of dollars that industry now spends on research and development to replace obsolete products with new ones could well be spent on managerial research. If the expenditure produces an executive selection procedure guaranteed to make no errors, the gains from such research efforts will be far more significant (p. 5).

Suppose we found ourselves in possession of selection instruments which would predict successful performance on a given job with one hundred per cent accuracy? This question is similar to one raised by B. F. Skinner. To quote from his book, Walden Two (1948):

"Mr. Castle," said Frazier very earnestly, "let me ask you a question. I warn you, it will be the most terrifying question of your life. What would you do if you found yourself in possession of an effective science of be-

havior. Suppose you suddenly found it possible to control behavior of men as you wished. What would you do?" (pp. 212-213).

Castle replied to the effect that he would dump the science of behavior into the ocean in order to give mankind the freedom they would otherwise lose forever. Frazier argued, on the other hand, that Castle would only be leaving the control in the hands of others--the charlatan, the demagogue, the salesman, the bully, the cheat, the educator, the priest--all of whom now possess techniques of behavioral engineering. Frazier's basic tenet is that if man is free then a technology of behavior is impossible: but, man is not free, only the causes and the control of his behavior are imperfectly known at present. The causes of his behavior are knowable, however, through a science of behavior. He goes on to add convincing arguments regarding man's lack of freedom and regarding scientific advances in understanding the influences of behavior. Frazier then argued that we not only can control human behavior, but we must in order to wield the science of behavior for the good of mankind. That is, in order to take the power away from demagogues such as Hitler.

Skinner is arguing that all behavior is lawful and, therefore, controllable in theory by the use of positive reinforcement and by carefully avoiding force or threat of force. He does not at any time say that behavior is always predictable. However, is the thought of an error-free selection procedure farfetched and outlandish? Is it conceivable that we could ever predict with perfect accuracy to any job or position in an organization?

On the one hand, it might be argued that the question of perfect prediction being a desirable goal, as posed in the title in this paper, is meaningless to ask because perfect prediction will never be achieved. First of all, the problems inherent in measuring successful performance as well as in measuring any behavioral characteristic of a human being are overwhelming and perhaps necessarily include an error component, i. e., at least some degree of unreliability. Besides, there are often too many factors to account for in the prediction equation, and the mathematical operations to relate predictors to performance are beyond the scope of any presently known. It has also long been recognized that in higher level and more complex jobs there are a variety of ways to be successful. On the other hand, some behavioral

scientists believe that the errors of measurement problems in terms of both the criterion and the predictors will someday be overcome. Also, computers allow large numbers of factors to be handled in accordance with complex mathematical functions. The presence of alternative routes to success is not a problem. What this implies is that one may have several candidates who will be equally successful. It is not a problem to fill a position from a group of candidates who have equal potential. If the manner in which they will be successful can also be predicted, this manner could become a further basis of selecting the successful candidate.

Whether or not it is possible to attain this goal, many personnel researchers appear dedicated to improving prediction with the implication of someday achieving perfect prediction. But, is perfect prediction a desirable goal? Let us assume that one organization has the power to predict successfully each occupant of each position in the organization. This should result in an optimally efficient organization with incumbents all highly productive and highly satisfied with their work. This in itself is a desirable goal to achieve. The goals of this vastly superior organization now become the important consideration. If the organization is dedicated to producing a socially valued product, again, the goal of perfect prediction for the incumbents of this organization is desirable. If the organization, on the other hand, were a military organization dedicated to the destruction of a society or another organization, then the goal of perfect prediction would be undesirable. Perhaps then the question of who should have possession of these instruments of perfect prediction is a more important one than that of perfect prediction. However, the very existence of perfect prediction instruments raises the question of who has possession of them. If perfect prediction were never achieved, the problem of who should possess this secret and to what goals the secret should be addressed would never arise.

Should, then, people be concerned with achieving non-perfect prediction? Does this type of goal make any sense? What alternatives, if any, are there to the desirability of perfect prediction? Is the goal of perfect prediction something for behavioral scientists to be concerned about?

This paper is meant to share some thoughts regarding a subject I do not pretend to understand. Therefore, I apologize for raising questions I cannot answer, but I solicit any comments you may have regarding these questions.

References

- Sands, Edith. Toward better executive selection. Michigan Business Review, 1964, Nov., pp. 5-9.
- Skinner, B. F. Walden Two. New York: MacMillan Co., 1948.

Errata

The Motorola Case--TIP, Volume 2, No. 3, (August, 1965)

In the fourth paragraph on page 35 of the Motorola article, the word "not" was mistakenly omitted between the words "had" and "been fully assessed." The paragraph should read:

Second, the decision did not explain why Motorola was fined but not ordered to reconsider Myart for employment. The Commission did make clear that an order to employ Myart was inappropriate because his qualifications for the job had not been fully assessed, but on the question of directing Motorola to make an adequate assessment, the decision offered only the following comment: "Respondent has made it clear during the course of these hearings that no purpose in furtherance of this Act would be served by ordering that the Complainant be further processed in its employment procedures."

The following typographical errors also occurred in the article.

1. On page 36, the last line should read, "S's height is less than B's" (instead of "A's height is less than B's").
2. In Table 1, page 43, under the Section entitled, "Analysis of Resolved Cases," the last line should read "Contact lost with complainant" (not "complaint").
3. In fourth line of footnote 6, page 45, the word "day" was omitted. The line should read "one day per month. . ."
4. The first word in the fifth line on page 46 should be "party" (not "part").
5. In the second line of the last paragraph on page 47, the thirteenth word in the sentence should be "conventional" (not "convention").

The Editor regrets these errors. And to help prevent future ones, we have fired not only half of the proof readers,

but also half of the editorial staff for that edition. Perloff, we'll miss you around here.

JB

Non-Errata

Further, if Ed Nevis thinks it was an error in proof-reading that let his name come out "Edwin C. Nervis" on page 8 in the program for the Thirteenth Annual Workshop in Industrial Psychology, he is mistaken. Reading proof two o'clock one morning, Perloff and I discovered this unique spelling. We decided to leave it "stet" to give Ed an introduction to his presentation (which he used, incidentally, whether he was aware at the time or not of the "error") and secondly, we thought we should allow some of our own and Purdue's biases about "Clinical Techniques in Industry" to show through the otherwise usually objective information in TIP. Should not anyone using these techniques in industry be Nervis?

JB

CALIFORNIA FEPC ESTABLISHES TECHNICAL ADVISORY
COMMITTEE ON TESTING

Howard Lockwood
Lockheed Aircraft Corporation

In June the California Fair Employment Practice Commission formed a Technical Advisory Committee on Testing. The purpose of the committee will be to advise the FEPC on employees' and unions' use of tests and other employment screening practices. One of the most immediate projects to be undertaken is the development of a set of guidelines for employers and unions for the evaluation of their selection procedures.

Named as chairman of TACT was Howard Lockwood, Corporate Manpower and Management Development Specialist at Lockheed Aircraft Corporation, Burbank. Mr. Lockwood is a member of Division 14 and recently served for 14 months with the President's Committee on Equal Employment Opportunity in Washington, D.C. A paper he delivered at the 1964 California State Psychological Association on "The Testing of Minority Applicants" appears in the July-August issue of The Personnel Journal.

Other Division 14 members on TACT are Jay Rusmore, Floyd Ruch, Mary Tenopyr, and Neil Warren. Other APA members are: Norman Cliff, Robert Heath, Jack Regal, and Joseph Sacks. Total membership on the committee is 35, with representatives from business and industry, labor, government and minority organizations.

The committee has three subcommittees: Technical, Information and Education, and Research. The Research subcommittee is headed by Dr. Rusmore. He would appreciate being apprised of any unpublished research projects completed or in progress in this area. Victor Howard a member of Division 5 is Vice-Chairman of the Technical Committee.

The formation of TACT was instigated by Mrs. Aileen Hernandez, formerly assistant executive director of the California FEPC and now one of the five members on the Equal Employment Opportunity Commission set up at the Federal level under the Civil Rights Act.

Persons seeking further information on TACT may write the California FEPC, 455 Golden Gate Avenue, San Francisco, or Howard Lockwood. The committee would also like to exchange information with members of similar committees in other states.

The Relationship of Fellowship and ABEPP Status

The Executive Committee has devoted considerable attention to questions of both ABEPP Diplomate status and the Fellow status for industrial psychologists. On the one hand, only a small proportion of members of the Division, who are probably otherwise qualified, seem to be seeking ABEPP status; on the other, even outstanding practitioners of industrial psychology who work in applied settings, do not seem to be qualified for Fellow status in the APA or in the Division.

The Executive Committee endorsed the formulation and promotion in Division communications media and elsewhere of a distinction between the two types of recognition, to the effect that the ABEPP diploma constitutes recognition of professional competency in the field, whereas Fellowship constitutes recognition of professional contributions to the field.

Under current policies and procedures, Fellowship is an unsolicited honor conferred on the basis of original contributions that have had significant impact upon the thinking and practice of others in the field. The ABEPP diplomate status is a self-solicited certification of the achievement of a high level of competence in practice. Those who believe they have reached this level are urged to apply for an ABEPP diploma.

(Excerpted from the Annual Report 1964-65 from Division of Industrial Psychology to The Board of Directors and Council of Representatives of APA.)

JB

EDITORIAL NOTE

It was no shock to me when Bob Perloff told me he was going to resign the editorship of TIP but the date was so far off, it did not worry me. It has been a wonderful experience working with him on getting TIP out and I will try to keep up the high standard of quality which he reached.

If TIP is to continue to be interesting and readable it is up to the members to continue to submit stimulating material. In connection with this, I should mention one disappointment I have already had. At the APA convention, many persons commented favorably on Perloff's Swan Song saying how provocative it was. It may have been provocative, but as yet, it has not stimulated any members to write me, as the editorial suggested, " 'case histories' or other kinds of reports aimed at suggesting how and where new generations of industrial psychologists might engage in a scientific love affair with, or find some romance in, industrial psychology."

There is no desire on the part of the Executive Committee or the Editor to make the Newsletter into a "journal" but we hope to continue to publish current material of interest to members as well as to keep members informed of Divisional Business.

Although the resignation was no shock because Bob told me when I agreed to work with him on the second issue of TIP that he would resign at the end of the year, it is with personal regret that he will no longer be directly associated with TIP. I trust that greater activity on the part of the Regional Editors and the members will make up for the fact that my days have only 24 hours in them as opposed to those days of countless hours which Perloff makes such effective use of.

John R. Boulger

APA Division 14
Executive Committee & Committee Chairmen
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